

BEST PRACTICES FOR WATER QUALITY TRADING

JOINT REGIONAL STATEMENT

Discussion Guide: First person scenario for Draft Best Practices

As part of the process to develop agreement on regional best practices around water quality trading, we have broken down the different elements of a trading program and discussed them as individual pieces. This memo is meant to bring those draft best practices back together in a mock description of a trade using those best practices. The purpose of the document is to ensure we have developed a set of best practices that A) meet the guiding principles we have developed, and B) are workable from the perspective of agencies, permittees, project developers, environmental groups, and other third parties.

In reality, a broad range of scenarios are possible under the draft best practices, but we have developed one here in order to walk through a mock transaction. Throughout the document, we have used text boxes to highlight some of the places where different options are available to stakeholders and various scenarios are discussed.

Trading Scenario: The Maclean River and the City of Brighton

The Maclean River flows from the mountains down to its confluence with the Big River. Along the way, it passes through cities, farm lands, and forests. The Maclean River has both a nutrient and temperature problem, which exceed the state standards for both pollutants. In 2012, a TMDL for both temperature, nitrogen, and phosphorous was completed for the entire Maclean River that established wasteload allocations (WLA) for several point sources, including the City of Brighton, a mid-sized city in the middle of the watershed surrounded by farmlands. Those farmlands are irrigated and produce some of the best blueberries and sugar beets in the country. The City and the State of Jefferson's Department of Environmental Quality (DEQ) are looking into the feasibility of trading in the Maclean River. New regional best practices for water quality trading have been released, and all parties would like to make their program consistent with those best practices.

Trading Need.

Brighton's NPDES permit is up for renewal next year and the City needs a plan to reduce its discharge of both phosphorous and nitrogen. The current wastewater facility employs secondary treatment technology, and DEQ has determined that the City's discharge does not cause any near-field impacts to aquatic species or human health. The City is considering an upgrade to biological nutrient removal, but is interested in trading to meet the balance of its phosphorous reduction and all of its temperature reduction needs. The trades would be used to help the City come into compliance with its water quality-based effluent limits (based on its WLA from the TMDL) after it has upgraded its facility to biological nutrient removal. Phosphorous and temperature are both eligible pollutants for trading.

The Maclean River TMDL used the Maclean's confluence with the Big River to set its model assumptions and WLAs, so this point was identified as the "point of concern." As such, Brighton

can purchase temperature and nutrient credits from most areas within the Maclean River watershed, both upstream and downstream of its point of discharge. There is a large dam upstream of Brighton that restricts fish passage, so no credits can be generated upstream of the dam since fish rearing and spawning are beneficial uses identified for the reaches below the dam.

DEQ Action.

DEQ has a trading framework in place, but many elements can be tailored to NPDES permittees' needs. It has approved three BMPs for use in the Maclean River: cover crops, riparian forest buffers, and irrigation efficiency. Credit for phosphorous for cover crops and phosphorous/temperature for irrigation efficiency can be released as soon as the BMPs are implemented. Phosphorous credits for riparian buffers can be issued immediately on planting, while temperature credits may be released in phases. Depending upon DEQ's discretion, up to 100% of credits could be released on planting, or some could be withheld until plants are established. The City's NPDES permit renewal may also allow for the inclusion of a compliance schedule that could reflect the time lag in vegetative growth. DEQ has not yet determined which approach it will take.

In reviewing the City's proposed trading plan, DEQ will also need to determine how long the practices must be in place and how actions are memorialized in writing. DEQ's preference is for five year agreements for cover crop changes (rotational practices and grazing management) and a contract minimum term of twenty years for riparian revegetation buffers. Irrigation efficiency terms will depend on the practice, but should be based on local conditions in some demonstrable way. DEQ would also like to encourage point sources to make sure that farmers or project developers have plans in place for the long-term financial stewardship of a project (if applicable). It is considering whether it should take a greater oversight role, like agencies do with permanent mitigation work (e.g., through requiring a performance bond, separate accounting, insurance, etc.) or whether the risk of nonperformance and noncompliance should remain with the regulated entity.

Nonpoint-to-Point Trading.

Under DEQ's trading framework, credits can only be generated from BMPs installed after the TMDL was approved (here, in 2012). Credits are measured as annual lbs of Total Phosphorous reduced and as kilocalories per day to cover any exceedances during July (the critical period for fish). DEQ has adopted applicable standards for cover crops, riparian forest buffers, and irrigation efficiency. These standards were designed by a stakeholder group based on NRCS practice standards, and were adapted locally for uniformity and quality control. Those quality standards include specific design considerations, how BMPs should be monitored, and how the BMPs should be maintained over time.

Credit Calculation.

DEQ has approved use of BMP efficiency rates (studied and developed by the same stakeholder group) to quantify nutrient reductions for cover crops (20% efficiency) and riparian forest buffers (50% efficiency). The A-1 Model may be used to quantify nutrient reductions from

irrigation efficiency, and the Temp-Est Model can be used to quantify temperature reductions from riparian forest shade and increased in-stream flow from irrigation efficiency. Seller-farmers or project developer-aggregators will estimate current pollution loads (current loads are equivalent to baseline requirements set within the TMDL and applicable laws and regulations) and anticipated pollution reductions post-BMP implementation to arrive at a numeric credit value for each project location.

Final credit amounts will be based on reduced pollutant loads plus the application of ratios. DEQ will need to decide how best to document the ratios they select.

Active Parties.

There are a number of farmers interested in these BMPs, and there are groups available in the watershed to help farmers implement these BMPs in a way that generates credits. Project developers that can serve as project site aggregators for the City are also eager to engage in potential trading.

Choose Another Option: In your role as a buyer or regulator, you can choose whether the Jefferson Resource Conservation District, DEQ, or the City of Brighton does the site screening, credit verification, certification, and registration. The write-up below puts the Conservation District in those roles.

The Jefferson Resource Conservation District (Conservation District), has stepped forward to assist. As part of an initial site screening, the Conservation District can check for the following:

- The property where the proposed BMP is located is in compliance with applicable laws and that the farmer is not otherwise required to immediately implement the proposed BMPs; and
- There is some documentation of the farmer's ownership of and/or right to transfer credits to the City (e.g., the farmer leases the land and has written approval to sell credits by the landowner).

As farmers implement BMPs, DEQ will need to decide who verifies that BMPs were installed according to DEQ-approved quality standards, the credit calculations were done correctly, and all the documentation is in place to back up a project's eligibility. DEQ will also need to decide how credits are issued, tracked, and information made to the public. The Conservation District has expressed interest in serving these functions for a fee, but the collaborative relationship has yet to be memorialized between DEQ and the Conservation District.

Based on an initial review, it seems to both Brighton and DEQ that trading is viable. Brighton continues to flesh out the detail of a trading option as part of its facilities plan update, which will inform its NPDES permit.

Brighton's NPDES permit.

Imagine that DEQ, the City of Brighton, and local stakeholders have worked out the details of the trading plan envisioned above, and now DEQ needs to finalize the City's NPDES permit. DEQ

will need to decide how much detail to put into the body of the NPDES permit itself and what specifics will be included in the trading plan. As the permit is being prepared for public comment, each of the stakeholder groups is meeting with their local counterparts to discuss the potential trading plan.

Farmer Sellers/Project Developers-Aggregators

Are the regional trading best practices easy to understand?

If I decide to participate in trading, what new regulations may I be subjecting myself or my farm practices to?

What kinds of flexibility with my agricultural practices will I give up? Will the potential gain be worth it?

Who will be on my property and what information will now be out in the public?

Is there enough certainty on how many credits I can generate and how/when I can be able to finance the implementation of BMPs?

Are transaction costs low enough to cover my costs plus a little return?

Special information for sellers

You are very concerned about disclosure of your private information and how that information might be used against you later by, for example, a cantankerous neighbor or an environmental advocate. Yet, when the opportunity comes to get paid for BMPs, those concerns are balanced against the financial security that extra funds provide to you and your family farm/agricultural business. As a farmer/project developer, you are most concerned about certainty—certainty on timing of permits being issued, certainty on the long-term viability of trading, and certainty around costs of delivering BMPs and being paid promptly for the credits. You are also wary of the costs associated with phased credit releases.

Buyers/NPDES Permittees

How many extra compliance requirements will these new trading best practices impose on the options I have now? What additional risk protection and assurances of compliance (including reduced risk of litigation) do these best practices provide to me?

What happens if the project developer/farmers I'm working with don't deliver? Do we want to work directly with multiple farmers, or just one project developer? What risk will we want a project developer to help take on (e.g., financing, bonds, performance of projects, etc.) – and what do we think is reasonable in a developing market?

Do these best practices constrain the flexibility to build a program that works best for my watershed? Do they provide enough certainty from DEQ that my permit will withstand scrutiny?

What are my fiduciary duties to my ratepayers? What other duties do I have to balance in choosing a trading program?

Do the trading ratios end up over-estimating risk, thus making my credits too costly?

Am I OK with retiring a % of BMPs credits after the first credit lifecycle, that I must still continue to maintain (e.g., 10% of temperature credits that I pay for are retired after the first 20 years from compliance use, but I still must pay to maintain them)? What factors may make me more or less comfortable with retirement percentages that help move forward with attainment of water quality standards?

Special information for buyers

You are pulled in two directions. You have active environmental groups who might litigate your permit if it is not strong enough, but you are also concerned about the potential costs of meeting all the stakeholders in the watershed. This tension pervades your comments.

Environmental Advocates

How can I confirm that measurable water quality benefits are actually being achieved, now that I can no longer just look at DMRs for the City?

Do these best practices let agriculture off the hook for their contributions to water quality degradation? Point sources?

Do these best practices set any dangerous precedents? Undermine other programs and policy objectives?

Do these best practices drive trading options that deliver better outcomes than alternatives?

Special information for buyers

You think the on-the-ground work that trading enables is important, but you are concerned that trading is not ready for primetime. You are concerned about your ability to watchdog an NPDES permit and DEQ's ability to enforce action distributed across nonpoint source landowners. The ad hoc nature of permitting decisions around trading also concerns you, as you think case-by-case decisions could be subjective.

DEQ/Regulatory Agency

Do these best practices still give me the flexibility I need to adapt my trading programs to unique situations, while at the same time providing the public with enough guidance and information to engender trust in the outcomes promised by the program?

Do the best practices help provide additional consistency with the CWA that will help make trading more defensible?

Do they work to reinforce our overall goals for environmental improvement? Are they synergistic with my other efforts? How and when can my agency discern whether the trades are resulting in watershed improvements?

Do I have the internal capacity to do what is being asked? If not, what options are feasible?

Do I have the ability to encourage these best practices? Require them? Work with third parties to implement them? What factors go into my decision-making?

The Conservation District believes that the use of cost share to complement credit-generating projects should be allowed, but not for use in generating credits (e.g., Farm Bill dollars pay for 70% of a project, so a farmer gets just 30% of the credits). It is fine with cost share being used to help meet baseline requirements. Is our agency OK with that?

Do the ratios end up over or under-estimating risk?

Am I OK with retiring a % of credits for BMPs that the City continues to maintain after their first crediting period (e.g., I keep maintaining forested buffers for 40 years, but retire 10% of credits after the first 20 years)?

Special information for agencies

You really want trading to work. You are under pressure from a number of stakeholder groups to enable trading in NPDES permit renewals, and you really want to see water quality improvements happen sooner. You are concerned that no matter what you do, your permits with trading will get challenged. You are trying to balance risk with incentivizing action.

Other Third Parties (Conservation District/Market Administrator)

Do I have sufficiently clear direction from DEQ to perform this work? What concerns do I have over entering into this market-based space?

Do these best practices help provide additional guidance that helps me be fair and consistent with farmers, the City, etc.?

Does this work to reinforce our overall goals for environmental improvement? Are they synergistic with my other efforts?

Do I have the internal capacity and staff expertise to do what is being asked? How can I generate the resources needed to do the work?

What aspects of the trading scenario would I and my staff and constituents like to see improved?

Am I willing to serve as an intermediary between the City and credit sellers (farmers/project developers)? What aspects of third party oversight am I comfortable assuming? How might I be implicated in failures?

Special information for Conservation District

As a Conservation District, you are very comfortable working with landowners and knowing a good BMP from a bad BMP. You are not comfortable taking on additional legal and financial risk. You are also very concerned about having to be the “bad cop” when a farmer doesn’t do what they have contracted to do.